THURSDAY, AUGUST 23, 1917.

NEW BOOKS ON PLANTS.

(1) *The Principles of Plant-Teratology.* By W. C. Worsdell. Vol. ii. Pp. xvi + 296 + plates 26–53. (London: The Ray Society, 1916.) Price 25*s.* net.

(2) *Plants Poisonous to Live Stock.* By H. C. Long. ("Cambridge Agricultural Monographs.") Pp. vi + 119. (Cambridge: At the University Press, 1917.) Price 6*s.* net.

(3) *Herbs Used in Medicine (First Series), with Descriptive and Explanatory Notes.* By Mrs. J. D. Ellis. Pp. 32. (London: National Herb-growing Association, 1917.) Price 3*s.*

(4) *British Wild Flowers: Their Haunts and Associations.* By W. Graveson. Pp. xv + 320. (London: Headley Bros.) Price 7*s.* 6*d.* net.

(1) IN our notice of the first volume of Mr. Worsdell's "Principles of Plant Teratology" (NATURE, February 22, 1917) reference was made to the scope of the work and to the author's views as to methods of morphological investigation. The second and final volume deals with the flower of the vascular plants, the term "flower" including not only the flower of Angiosperms, but also the "cones" of Gymnosperms and vascular cryptogams and the sporophylls of ferns.

There are three main sections, entitled "Differentiation," "Simplification," and "Adventitious Flowers." Under the first head are grouped the following phenomena: Proliferation; forking and fasciation; disruption, a term applied to the splitting of the maize-cob, a female inflorescence, into the constituent branches which are normally united to form the cob; positive *dédoublement,* including increase in number of the members of a whorl (polyphylly) and increase in number of the whorls (pleiotaxy); dialysis, splitting or dissociation of members; and metamorphosis. Simplification includes abbreviation of the inflorescence and flower, adnation of floral axes or floral leaves, cohesion and suppression. Adventitious flowers are rare: a few cases are cited, and the remarkable instance of the Nepaul barley is described.

Most of the phenomena described under Differentiation are regarded as reversionary, though a number of those due to metamorphosis are recognised as progressive. The flower is considered as evolved from an elongated leafy shoot, the cone forming an intermediate stage; hence proliferation, which involves an elongation of the axis beyond the normal, is a reversionary process. On the other hand, granting that "simplification" of the flower by means of cohesion and suppression of its members represents one of the main processes of floral evolution, teratological phenomena of cohesion and suppression are regarded as progressive in nature, while those involving dissociation are reversionary. The splitting to a greater or less degree of the corolla of a gamopetalous flower into its component petals is not unusual, as, for instance, in Campanula; this is a case of reversion, because the flower with united petals represents a higher state of evolution than the flower with free petals. On the other hand, the reverse phenomenon of union of petals which are normally distinct is progressive. But does it represent anything more than mere terminology to call one of these instances progressive and the other reversionary? And is there any reality in the suggested relationships?

The study of plant abnormalities is full of variety and interest, and rich in surprises; to have prepared a book of reference on the subject is to have earned the gratitude of one's fellow-botanists. But Mr. Worsdell's work would have claimed a higher position if fewer pages had been devoted to theorising; the *rôle* of the recorder is an eminently useful one.

(2) Mr. Long's book on plants poisonous to live stock in the United Kingdom forms a handy work of reference in a subject on which the literature is remarkably scattered. The author has brought together many facts from numerous technical reports and journals, and the compilation will be of great value to those responsible for the care and treatment of animals. The plants included are more or less common wild plants which might be eaten by grazing animals or be mixed with fodder, but reference is also made to common ornamental plants known to be dangerous, such as laburnum, rhododendron, and cherry laurel; and poisonous leguminous plants, such as Indian peas (*Lathyrus sativus*), Java beans (*Phaseolus lunatus*), and lupines, are described at length. Excepting ergot, fungi are not included.

Poisonous plants differ widely in degree of harmfulness, and it is probable that under ordinary conditions many of the plants commonly regarded as poisonous are almost or quite harmless. In a state of nature animals appear to avoid toxic or unwholesome plants and to be less readily poisoned than are domesticated animals. Individuality is also a factor, some animals having a depraved appetite for unusual and unappetising food plants. The author quotes a remark of two American writers, that "there seems to be no way of accounting for the appetite or taste of stock." This statement is perhaps especially true of sheep, which will eat greedily on one day plants which they could scarcely be persuaded to eat on the following day on the same range of hills. The toxic properties of the plant are often affected by conditions of soil, climate, and cultivation; for instance, *Solanum nigrum,* an almost cosmopolitan weed, varies so much that it has been regarded as harmless in one country and poisonous in another. Again, a plant may be poisonous in all its parts, *e.g.* meadow saffron; or one part alone may be toxic, as the seeds in corn cockle. Frequently, as with buttercups, there are variations in the poisonous character according to the season, and some parts of the plant are more toxic than others; the flowers are the most poisonous, and then the leaves and stem.

The plants are arranged in systematic sequence under their respective families. Evidence for in-

©1917 Nature Publishing Group

D D

cluding the plant as poisonous is given in each case, the toxic principle is described, as are also the symptoms, and references are given to the bibliographical list at the end of the volume. A short chapter is devoted to plants which lie more or less under suspicion of being poisonous, and there is also a brief account of the effects of wild plants on milk.

(3) Mrs. Ellis has written some useful descriptive text to a series of sixteen good coloured drawings by Miss Ethel Barlow illustrating some of the common herbs used in medicine.

(4) Mr. Graveson writes for the general reader. In a series of twenty-eight chapters he describes as many flower-rambles made between March and September. His style is discursive, but conveys some information on the life-history of the commoner wild plants. There is a good deal of "folk-lore" derived from well-known sources, and also plenty of quotations from the poets. The best feature of the book is the series of plant-sketches by Mr. J. Wood, which are included in the form of full-page plates.

IS THE ANGLO-SAXON DOOMED?

The Passing of the Great Race; or, The Racial Basis of European History. By Madison Grant. Pp. xxi+245. (London: G. Bell and Sons, Ltd., 1917.) Price 8*s*. 6*d*. net.

IN this work Mr. Grant takes up a theme which was broached by Dr. Gustav Retzius in his Huxley lecture to the Royal Anthropological Institute in 1909. In speaking of the two competing types of European—the tall, long-headed, blue-eyed Nordic type, and the short, round-headed, dark-eyed Alpine type—Dr. Retzius expressed himself thus:—

"There may lie in the circumstances to which I have called attention a very real danger of the North European dolichocephalic race not being able to hold its own. Just as it has been ousted during the past thousand years from Germany and other countries in Central Europe by the dark-haired, small-statured brachycephali, so, too, will it probably have to yield place here [England] and be reduced in numbers; perhaps by degrees disappear entirely out of the fatherland of their ancestors, by reason of the ever-increasing might and power of industrialism, with which they seem ill-fitted to cope successfully in the long run. The prospect is depressing, it cannot be denied, but the development of things in the world is not seldom harsh and unmerciful." [1]

That is the opinion which an excellent representative of the Nordic type formed of the future of his race in Europe. In a broad way Mr. Grant's book deals with the fate of the Nordic type in the United States of America, and from stray statements, which appear in a somewhat disjointed manner throughout its pages, we gather that the future of the Nordic type is as sombre in America as in Europe. "One often hears the statement made," writes Mr. Grant, "that native Americans of colonial ancestry are of mixed ethnic origin. This is not true. At the time of the Revolutionary War the settlers in the thirteen colonies were not only purely Nordic, but also purely Teutonic, a very large proportion being Anglo-Saxon in the most limited meaning of that term."

Mr. Grant evidently uses "Teutonic" as a term for men of the Nordic type inhabiting modern Germany, and forming less than a sixth of the population of that Empire, but as "Teutonic" in ordinary language has come to be equivalent to German, it would be a scientific gain if anthropologists could agree to apply the term "Teutonic" for the designation of the round-headed, fair-haired non-Nordic prevalent and predominant German racial type. That, however, is a side-issue; the main matter is that everyone who has investigated the problem will agree with Mr. Grant that the men who secured the United States (and Canada) as a home for white men were almost a pure embodiment of the Nordic type. We expected Mr. Grant to give us the results of systematic inquiries and exact figures as to the prospects of the type in the modern population of the United States. We know how in recent years millions of the competing dark-haired, round-headed type have left Central Europe and crowded into the manufacturing centres throughout North America. "Our immigrants now," says Mr. Grant, "largely represent lowly refugees from persecution and other social discards. . . . European Governments took the opportunity to unload on careless, wealthy, and hospitable America the sweepings of their jails and asylums."

Races from the shores of the Eastern Mediterranean are crowding into the Southern States; the negro is more prolific than the native white man. "As in all wars since Roman times," so Mr. Grant avers, "the little dark man is a winner from the breeding point of view." There are ample and trustworthy statistics to prove that the descendants of the original colonists are much less prolific than other and different human stocks which have recently arrived in America. It must be admitted that there is a danger of the fair heritage gained by the enterprise and courage of the Nordic pioneers—a heritage in which the best traditions of Anglo-Saxon life were established—passing to a type of man that the early colonists would not have shed a drop of their blood to save. It is just for that reason we wish that the author of this book had stated his case somewhat differently in a work which has the alluring title, "The Passing of the Great Race." A. K.

ANOTHER TEXT-BOOK OF HISTOLOGY.

A Text-book of Histology. By Prof. H. E. Jordan and Dr. J. S. Ferguson. Pp. xxviii+799. (New York and London: D. Appleton and Co., 1916.) Price 15*s*. net.

THE appearance of another text-book dealing mainly with human histology and obviously designed chiefly for medical students naturally

---

[1] Journ. Roy. Anthrop. Institute, 1909, vol. xxxix., p. 300.

©1917 Nature Publishing Group